



Hexagonal Nanocrystals from Dip-pen Nanolithography

Atomic force microscopy (AFM) image of lead disulfide microcrystals grown on a silicon oxide surface patterned by the AFM using dip-pen nanolithography (DPN). The field of view is $11.6\text{ }\mu\text{m}$ across, and the hexagonal crystallites are about 60 nm high. DPN was used to write a $5 \times 5\text{ }\mu\text{m}$ chemically reactive region on the wafer, which was then soaked in lead acetate and exposed to H_2S gas. Microcrystals selectively grew starting from the patterned area.